



U.S. Department of Energy
Office of River Protection
P.O. Box 450
Richland, Washington 99352

03-OSR-0271

Mr. J. P. Henschel, Project Director
Bechtel National, Inc.
2435 Stevens Center
Richland, Washington 99352

Dear Mr. Henschel:

CONTRACT NO. DE-AC27-01RV14136 – U.S. DEPARTMENT OF ENERGY, OFFICE OF RIVER PROTECTION (ORP) APPROVAL OF DELIVERABLE 7.2, QUALITY ASSURANCE MANUAL (QAM) – 24590-WTP-QAM-QA-01-001, REVISION 4A

- References:
1. BNI letter from J. P. Henschel to R. J. Schepens, ORP, "Deliverable 7.2, Quality Assurance Manual – 24590-WTP-QAM-QA-01-001, Revision 4," CCN 062368, dated July 7, 2003.
 2. BNI letter from J. P. Henschel to R. J. Schepens, ORP, "Deliverable 7.2, Quality Assurance Manual – 24590-WTP-QAM-QA-01-001, Revision 4a," CCN 066348, dated August 25, 2003.

This letter approves the changes Bechtel National, Inc. (BNI) submitted in the QAM, submitted in References 1 and 2, to comply with the Title 10 Code of Federal Regulations (CFR) Part 830, Subpart A, Section (b)(3) requirement to annually submit changes for approval.

The QAM changes primarily reflected changes to BNI's management structure and assignment of responsibilities to meet construction needs. The changes included incorporation of previous commitments to ORP, clarifications, and enhancements based on project experience to date. In Reference 2, BNI also incorporated Revision 13 of DOE/RW-0333P, "Quality Assurance Requirements and Description" and addressed an ORP question raised during review of Reference 1. The ORP reviewers determined the changes did not affect safety or current commitments.

Based on the attached Safety Evaluation Report, ORP approves Revision 4a of the QAM. There is reasonable assurance that the health and safety of the public, the workers, and the environment will not be adversely affected by the changes, and they comply with applicable laws, regulations, and River Protection Project Waste Treatment and Immobilization Plant contractual requirements.

Mr. J. P. Henschel
03-OSR-0271

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If you have any questions, please contact me, or your staff may contact Al Hawkins, WTP Safety Regulation Division, (509) 372-0805.

Sincerely

OSR:ARH

Roy J. Schepens
Manager

Attachment

Safety Evaluation Report of 24590-WTP-QAM-QA-01-001, Revision 4 and 4a Quality Assurance Manual

1.0 INTRODUCTION

The River Protection Project Waste Treatment and Immobilization Plant (WTP) authorization basis is the composite of information, provided by Bechtel National, Inc. (BNI [the Contractor]) in response to radiological, nuclear, and process safety requirements. It is the basis on which the U.S. Department of Energy, Office of River Protection (ORP) Manager grants permission to perform regulated activities. The authorization basis includes information requested by the Contractor for inclusion in the authorization basis and subsequently accepted by ORP. The authorization basis for the WTP includes the Quality Assurance Manual (QAM). The QAM contains the Contractor's program for meeting the requirements of Title 10 Code of Federal Regulations (CFR) Part 830, Subpart A, "Quality Assurance Requirements" (also called the Quality Assurance [QA] Rule). By BNI letters dated July 7, 2003,¹ and August 25, 2003,² the Contractor submitted revisions to the QAM. The submittal complies with the 10 CFR 830, Subpart A, Section (b)(3) requirement to annually submit changes for approval. This Safety Evaluation Report documents the evaluation of the changes made by the Contractor.

ORP conducted this evaluation considering the guidance provided in RL/REG-96-01.³ Because the Contractor's changes were largely editorial or related to changes in organization structure, the reviewers did not use the full review methodology described in the Quality Assurance Planning Handbook.⁴ Rather, the reviewers addressed only continued compliance of modified sections.

2.0 BACKGROUND

The Contractor documented numerous changes to the QAM in its July 7, 2003, letter. The changes reflected five revisions to the document since ORP approved Revision 1, as follows:

- Revision 2, November 4, 2002 – incorporated ORP comments on Revision 1, updated roles and responsibilities, and incorporated Quality Assurance Requirements and Description (QARD)⁵ requirements for document change review.
- Revision 3, January 6, 2003 – incorporated QARD Revision 11 requirements for model development and use and updated roles and responsibilities.

¹ BNI letter from J. P. Henschel to R. J. Schepens, ORP, "Deliverable 7.2, Quality Assurance Manual – 24590-WTP-QAM-QA-01-001, Revision 4," CCN 062368, dated July 7, 2003.

² BNI letter from J. P. Henschel to R. J. Schepens, ORP, "Deliverable 7.2, Quality Assurance Manual – 24590-WTP-QAM-QA-01-001, Revision 4," CCN 066348, dated August 25, 2003.

³ RL/REG-96-01, Revision 2, "Guidance for Review of the RPP-WTP Contractor Quality Assurance Program," dated March 15, 2001.

⁴ RL/REG-2000-14, Revision 2, "Quality Assurance Program Planning Handbook," dated July 22, 2002.

⁵ DOE/RW-0333P, Revision 11, "Quality Assurance Requirements and Description," dated May 3, 2002.

- Revision 3a, May 14, 2003 – made minor editorial changes and incorporated additional roles and responsibilities.
- Revision 4, July 10, 2003⁶ – clarified requirements and qualifications for Nondestructive Examination and for testing.
- Revision 4a, August 25, 2003 – incorporated the requirements of Revision 13 of DOE/RW-0333P, “Quality Assurance Requirements and Description” and addressed an ORP question raised during review of Revision 4.

The Reviewers also checked several randomly selected policies to ensure the Contractor had documented all changes. The reviewers did not find any undocumented changes. The following section documents the evaluation of changes other than organizational roles and responsibilities.

3.0 EVALUATION

Description of Changes:

The following describe the proposed changes to each Quality Assurance Policy modified by the Contractor through Revision 4a.

1. Policy Q-02.1, *Quality Assurance Program* – The Contractor updated the referenced QARD to Revision 13 (here and throughout the QAM). These changes were editorial except for changes to QAM Supplement III, “Scientific Investigation.” The Contractor also eliminated the linkage between Quality Level and safety significance.
2. Policy Q-02.2, *Personnel Training and Qualification* – The Contractor made changes clarifying affected staff receives training when the Contractor modifies procedures. The Contractor added words allowing the use of editions later than the currently cited 1980 edition of the American Society of Nondestructive Testing Recommended Practice No. SNT-TC-1A for qualifying Nondestructive Examination personnel.
3. Policy Q-03.1, *Design Control* – The Contractor added the area-specific (i.e., High-Level Waste Facility, Pretreatment) responsibilities of the Area Project Managers.
4. Policy Q-05.1, *Instructions, Procedures, and Drawings* – The Contractor eliminated text in Section 4.1.1A that was redundant with Section 3.5.1B of this policy.
5. Policy Q-06.1, *Document Control* – The Contractor reassigned responsibility for implementing project procedures for document control and records management from the Business Services Manager to the Project Manager.

⁶ Note that the Contractor postdated the QAM with respect to the transmittal letter.

6. Policy Q-07.1, *Control of Purchased Items and Services* – The Contractor modified the Responsibilities section of this policy to add the role of the Area Project Managers when purchasing items or services.
7. Policy Q-10.1, *Inspection, and 11.1, Test Control* – The Contractor made editorial changes to these policies to clarify requirements for qualifying test personnel.
8. Policy Q-11.1, *Test Control* – In Revision 4a, the Contractor noted (Attachment 2, Page 9) that responsibility for “providing and approving test requirements and acceptance criteria” was reassigned from the Engineering Manager to the Area Project Managers. However, in the Revision 2 QAM as received, this responsibility was not changed. (Note: CCN 062368 also cites the change as occurring in Section 6.5. This is a typographical error. The citation should have been to Section 6.2.)
9. Policy Q-16.1, *Corrective Action* – The Contractor made an editorial change to ensure the new position of Project Director received trend evaluations.
10. Policy Q-17.1, *Quality Assurance Records* – The Contractor reassigned responsibility for QA record procedures from the Business Services Manager to the Project Manager.
11. Policy Q-18.3, *Management Assessment* – The Contractor clarified that management documents and dispositions deficiencies identified during management assessments, and that management develops and implements action plans, where appropriate.

Evaluation: (Acceptable)

The proposed changes are acceptable because they did not reduce the level of commitment. The reviewers provided the analysis supporting this conclusion, for each change noted above, in the following discussion. The reviewers also noted many of the changes related to the Contractor’s efforts to define organizational roles and responsibilities more completely and clearly. The reviewers found this effort significantly improved the QAM. The reviewers verified each responsibility defined in Revision 1 of the QAM was in Revision 4a. The reviewers found all responsibilities. The reviewers also found the Contractor consistently described roles and responsibilities across the QAM. Therefore, this evaluation does not address changes to roles and responsibilities further.

1. Policy Q-02.1, *Quality Assurance Program* – the change to QAM Supplement III based on changing to QARD Revision 13 requires the Contractor to more rigorously control data qualification. As the change does not reduce the level of commitment, it was acceptable. There is no requirement in the QA Rule that the Contractor establish Quality Levels or link them to safety significance, and the Contractor did not use safety significance elsewhere in the QAM. Therefore, this change was acceptable.

2. Policy Q-02.2, *Personnel Training and Qualification* – the Contractor’s change regarding staff training responded to a commitment made during the review of QAM Revision 1⁷. The reviewers confirmed the Contractor made this change per its commitment. The change was therefore acceptable.

The reviewers met with the BNI QA Manager and reviewed the documented analysis allowing the use of editions later than the currently cited 1980 edition of the American Society of Nondestructive Testing Recommended Practice No. SNT-TC-1A for qualifying Nondestructive Examination personnel⁸. The reviewers examined differences between the 1980 edition and all editions (i.e., 1984, 1988, 1992, and 1996) up to the latest (2001) edition of SNT-TC-1A. In most cases, the later versions are more specific and restrictive (e.g., increased number of questions for examinations, Level III certification no longer allowed without testing). The one exception is to allow Level III certification at 5-year intervals, verses the previous 3-year interval. The Contractor had noted its intent to use 5-year intervals in the previously approved Revision 1 QAM. Therefore, the reviewers determined that the use of later versions of SNT-TC-1A did not reduce the level of commitment and the change was acceptable.

In addition, the Revision 4 wording of this section would have allowed the Contractor to use future editions of SNT-TC-1A without review for changes in level of commitment. The Contractor corrected this in Revision 4a.

3. Policy Q-03.1, *Design Control* – The reviewers confirmed the added responsibilities were consistent with those described in Policy Q-01.1 and did not reduce the level of commitment. Therefore, the changes were acceptable.
4. Policy 05.1, *Instructions, Procedures, and Drawings* – The reviewers confirmed the text was redundant. Therefore, the change was acceptable.
5. Policy Q-06.1, *Document Control* – The reviewers confirmed the changed assignment of responsibility was consistent with responsibilities as described in Policy Q-01.1 and the Contractor had not reduced its level of commitment. Therefore, the change was acceptable.
6. Policy Q-07.1, *Control of Purchased Items and Services* – The reviewers confirmed the added responsibilities were consistent with responsibilities as described in Policy Q-01.1 and the Contractor had not reduced its level of commitment. Therefore, the change was acceptable.

⁷ BNI letter from R. F. Naventi to R. J. Schepens, ORP, “Contract No. DE-AC27-01RV14136 – Response to Office of River Protection Questions on the Bechtel National, Inc. Quality Assurance Manual,” CCN: 040049, dated September 12, 2002.

⁸ BNI Memorandum from G. T. Shell to Distribution, “Comparison of SNT-TC-1A June 1980 Edition to Later Editions,” CCN: 039063, dated August 23, 2002.

7. Policy Q-10.1, *Inspection*, and Policy 11.1, *Test Control* – The reviewers confirmed the editorial changes did not decrease the level of commitment and were therefore acceptable.
8. Policy Q-11.1, *Test Control* – The reviewers met with the QA Manager and BNI QA staff and discussed this discrepancy. The Contractor provided a written explanation, as follows:⁹

During the internally approved Revision 2 of the QAM, the Contractor changed the responsibility for providing and approving test requirements and acceptance criteria from the Engineering Manager to the Area Project Managers. This made the QAM inconsistent with itself. Other sections of the document (Policy Q-03.1, “Design Control,” Policy Q-10.1, “Inspection,” et. al.) assigned this responsibility to the Engineering Manager. The Contractor recognized this discrepancy and corrected it in Revision 4a by changing the responsibility back from Area Project Managers to the Engineering Manager. The Contractor incorrectly reported the change in the transmittal letter.

The reviewers found this explanation acceptable.

9. Policy Q-16.1, *Corrective Action* – This change was editorial only, did not affect commitments, and was acceptable.
10. Policy Q-17.1, *Quality Assurance Records* – The reviewers confirmed the changed assignment of responsibility was consistent with responsibilities as described in Policy Q-01.1 and the Contractor had not reduced its level of commitment. Therefore, the change was acceptable.
11. Policy Q-18.3, *Management Assessment* – the Contractor’s change regarding deficiencies identified during management assessments responded to a commitment made during the review of QAM Revision 1. The reviewers confirmed the Contractor made this change per its commitment. The change was therefore acceptable.

4.0 CONCLUSION

Based on evaluation of the changes described above, the changes are acceptable. There is reasonable assurance the changes will not adversely affect the health and safety of the public and the workers, and the environment. Furthermore, the proposed changes comply with applicable laws, regulations, and WTP contractual requirements.

⁹ BNI E-mail, D. J. Canazaro to A. R. Hawkins, July 25, 2003.